



UNITED STATES PATENT AND TRADEMARK OFFICE

EA

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,876	02/10/2000	Eddie D. Sowle	163.1173USII	4490

7590 05/03/2006

James D. Withers
Withers & Keys, LLC
P.O. BOX 2049
MCDONOUGH, GA 30253

EXAMINER

YU, GINA C

ART UNIT PAPER NUMBER

1617

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/501,876	Applicant(s) SOWLE ET AL.	
	Examiner Gina C. Yu	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 77-84 and 86-88 is/are pending in the application.
- 4a) Of the above claim(s) 83,84 and 86-88 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 77-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of amendment filed on January 9, 2006. Claims 77-84, 86-88 are pending, of which claims 83, 84, 86-88 have been withdrawn from consideration. Claim rejections made under 35 U.S.C. § 112, second paragraph, and § 103 (a), as indicated in the previous Office action dated September 9, 2005, are withdrawn in view of the claim amendment made by applicants. New rejections are made.

Election/Restrictions

Newly amended claims 83, 84, 86-88 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Claims 83, 84, 86-88 are directed to "a third sink". Claims 77-82 are directed a method of using a composition.

Since applicant has received an action on the merits for the originally presented invention (composition and method of using the composition), this invention has been constructively elected by original presentation for prosecution on the merits.

Accordingly, claims 83, 84, 86-88 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 77-82 are rejected under 35 U.S.C. 103(a) as obvious over Salvato (Environmental Engineering and Sanitation, 1992) in view of Kitko (US 4248827), Gladfelter et al. (US 5358653), and Choy et al. (US 5851421).

Claim 77 is directed to a method of washing wares by using a composition of pH 5.5-7, and providing the composition in a vessel, monitoring the dye-color of the composition; and replacing or replenishing the liquid composition when the dye-color is nearly or completely absent, wherein the composition comprises FD & C dye No. 4 or No. 3 having particle size greater than about 500 microns and density less than 0.9 gram-cm³, and chlorine source comprising alkali metal dichloroisocyanurate dihydrate.

Salvato teaches that chemical disinfectants have been used to disinfect and sanitize ware equipment and utensils, including cups and glasses. The reference teaches using hypochlorite solution, and replacing the solution when the concentration falls to 50 mg/l. See p. 990. The reference also teaches that a three-compartment sink is essential to rinse the soil off between the wash and disinfection step, since organic matter and milk use up chlorine and make it ineffective as a disinfectant. Use of a cyanuric acid at 100 mg/L for minimum of 1 minute is also taught. P. 991. The reference also teaches that a higher concentration of hypochlorite solution (200 mg/L) is required if the bleach is used as spray. See p. 990. The reference also illustrates that glass wares are hand-washed in a three-compartment sink and air-dried. See p. 992-3.

Salvato also teaches that the operator should ensure the sanitizer is maintained at the proper strength, which is difficult to achieve. See p. 991, 3rd full par. The

reference fails to teach using color indicator to monitor the hypochlorite activity, as required by the present claims.

Kitko teaches a hypochlorite agent which provides transitory visual signal to indicate the activity of the sanitizing agent in a flush toilet bowl. See col. 2, lines 5-20. The dye agents are dispensed into the toilet flush water, wherein the dye is oxidized from a colored state to a colorless state within 5 seconds to 10 minutes after contact with the hypochlorite. See col. 1, line 57 – col. 2, line 20. The reference teaches that one of the objectives of the invention to give visual signal to the consumer when to replenish the sanitizing agent by a visual color agent. See col. 1, line 67 – col. 2, line 2. Sodium dichloroisocyanurate dihydrate of instant claims is among the sanitizing hypochlorite agents for the invention. See col. 2, lines 21 – 49; instant claim 82. The reference also teaches that the amount of dye dispensed to the toilet will depend on the color intensity desired, the amount of sanitizing agent dispensed into the toilet with the dye, and on the quickness with which it is desired to have the color disappear. See col. 3, lines 38 – 42. The reference further teaches that the dyes which are suitable for use in the method of the prior art invention are those which are oxidized by the sanitizing agent to a colorless state within a period of 5 seconds to 10 minutes from the time they come in to contact with the sanitizing agent during the flushing of the toilet. See col. 3, lines 53-58. The reference teaches that 2-30 ppm (2-30 mg/L) of chlorine amount of hypochlorite-providing compound sufficient to provide from about 2 to about 30 ppm. See col. 2, lines 55- 60. The reference also illustrate the testing of dyes for the time interval to change its color to colorless stage at catalyzed and uncatalyzed chlorine level

of 5 ppm, at pH 6 and 9. See col. 3, line 60 – col. 4, line 58. FD&C dyes, such as FD&C no. 3, are tested. See instant claim 77. Since the same type of dyes are used in the prior art and the present invention, it is viewed obvious that the particle size of the dyes also same. The reference teaches that dyes provide the color change within a period of from about 5 seconds to 10 minutes. Using FD&C dye no. 30 or 40 is viewed as an obvious choice for a desired color of the composition or solution. While the reference teaches that the color change occurs in 5 seconds to 10 minutes, the reference also teaches that the amount of dyes to be used depend on the intensity of the color, and the quickness with which it is desired to have the color disappear, while also suggesting that wide variety of dyes can be used. See col. 3, lines 34 – 52.

Kitko fails to teach the 3-18 hour time limitation of instant claim 77 and encapsulating hypochlorite as required by instant claim 82.

Gladfelter teaches a chlorinated rinse aid concentrate suitable for dispensing and aqueous rinse concentrate and to methods of rinsing with simultaneous stain removal or sanitization. See col. 3, lines 37 – 41.

Examples disclose the preparation of encapsulated active chlorine compound comprising sodium dichloroisocyanurate dihydrate and sodium chloride. See instant claim 82. Gladfelter also teaches “the encapsulated chlorine sources, in combination with a polyalkylene oxide type rinse aid surfactants of the invention are stable during manufacture, storage, transportation, and use.” See col. 4, lines 6-11. Thus, a skilled artisan would have found a motivation to use encapsulated sodium dichloroisocyanurate dihydrate because it is said to be more stable.

The encapsulated chlorine source of Gladfelter comprises the core of active chlorine with an inorganic intermediate coating which comprises filler. See col. 4, line 60 – col. 7, line 35. The reference teaches the method of using the invention, which include introducing the aid into potable water in rinse cycles at relatively neutral pH, wherein the concentration of the active chlorine is about 3 to 50 ppm (3-50 mg/L). See col. 2, lines 29 – 49. The reference also teaches using higher chlorine concentration for more effective sanitization. The reference further provides that the concentration required may vary depending on the temperature of the water. See col. 12, line 50 – col. 13, line 7. Since sodium dichloroisocyanurate dihydrate is encapsulated by layers of coating, it is viewed obvious that the release of the chlorine source is slow and time-controlled.

The combined references fail to teach using the hypochlorite composition with dye indicator to wash wares.

Choy et al. teach that thickened hypochlorite solutions have been used in disinfecting hard surfaces including toilet bowls, while also disclosing a dish washing compositions comprising hypochlorite as a prior art. See col. 1, line 52 – col. 2, line 3. Thus, it is viewed that a skilled artisan in disinfectant and sanitizer art would have considered Salvato, Keiko, and Gladfelter are analogous arts.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teaching of Salvato by using the hypochlorite disinfectant composition with dye-color indicator because 1) Salvato teaches to maintain the sanitizer at proper strength and replenish sanitizer when necessary; 2) Kitko

teaches dye color-indicator that allows consumers to monitor the activity of hypochlorite to sanitize toilet sink; and 3) Choy teaches that it is well known in the art that hypochlorite is used to disinfect and sanitize both ware washing and toilet bowl. Given the teaching of the concentration of the required hypochlorite to effectively sanitize the wares as in Salvato, and the teaching of how to formulate the visual indicator using dye and hypochlorite as in Kitko, the skilled artisan would have reasonably expected to successfully sanitize dishware following the visual signal of the hypochlorite activity.

While the combined references do not explicitly teach replenishing the bleach composition within 3-16 hours as recited in the present claims, according to the teachings of the references, it is viewed that the time limitation is obvious because it depends on the numerous parameters such as hypochlorite concentration, amount of dye, intensity of color, whether hypochlorite is encapsulated, etc, that are to be manipulated by a skilled artisan. Examiner views that given collective teachings of the references, one of ordinary skill in the art would have discovered, by routine experimentations, the optimum ratio of chlorine to dye required to produce the color-to-colorless signal within a desired time frame. Furthermore, it is noted that the combined teachings of the references render recited claim limitation of the bleach composition obvious because the reference teaches using specific dyes and hypochlorite source at specific pH, in encapsulated form. Since the present composition is viewed obvious over the prior art, it is viewed that the 3-18 hour release property of the composition as recited by applicants is obviously also the resulting timed-release property of the hypochlorite composition that is made as taught by the prior art.

Response to Arguments

Applicant's arguments filed January 9, 2006 have been fully considered but they are moot in view of new grounds of rejection in part.

Conclusion

Claims 77-82 are rejected.

Claims 83-84, 86-88 are withdrawn from consideration.

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-8605.

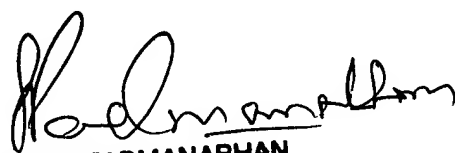
Art Unit: 1617

The examiner can normally be reached on Monday through Friday, from 9:00AM until 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gina Yu
Patent Examiner



SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER